

Table of Contents: HIV/AIDS Statistics of Persons Diagnosed in Michigan

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General HIV

AIDS (Acquired Immune Deficiency Syndrome)

Diagnosis with any one of 26 different opportunistic illnesses which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency (i.e. CD4 count <200 or CD4 percent <14%)

Case Definitions for HIV and AIDS

Standard definitions used by all states. Specific information is required in order to count a case of HIV infection or AIDS, including a method to uniquely identify an individual. Each person is counted as either HIV infected without AIDS or HIV infected with AIDS. Once a person meets the AIDS case definition, this person is always counted as an AIDS case, even if his/her health improves.

HAART

Highly Active Antiretroviral Therapy

HIV (Human Immunodeficiency Virus)

Diagnosis with HIV by positive HIV screening and confirmatory test or positive result or detectable quantity on virologic test

Pediatric Cases

Children < 13 years at the time of diagnosis

Epidemiology Terms

Epidemiology

The study of the distribution, determinates, and frequency of disease in humans.

GIS (Geographic Information System)

The display and analysis of geographic data in map format.

Incidence

Number of persons who become infected with a disease in a certain period of time, usually a year.

New Diagnoses

Number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance, new diagnoses do not necessarily represent new infections, as newly diagnosed cases may have been infected for many years. Thus, only some newly diagnosed cases are also incident cases.

Prevalence

Total number of persons currently living with a disease at one point in time. See page iii for a description of estimated prevalence in Michigan.

Public Health Surveillance

The ongoing collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a condition or risk factor of public health concern.

Rate

Count of infected cases divided by the number of persons in the population (infected and uninfected). This calculation is multiplied by a multiple of 10, usually 1,000 or 100,000. Allows one to weigh the relationship between prevalence or number of new diagnoses and population.

Administrative Info

CDC

U.S. Centers for Disease Control and Prevention

eHARS (HIV/AIDS Reporting System)

A standardized database developed by CDC for national reporting of HIV/AIDS

HAPIS

HIV/AIDS Prevention and Intervention Section

MDCH

Michigan Department of Community Health

Michigan HIV Surveillance Activities

Core HIV Surveillance

Population-based surveillance system of diagnosed adult, adolescent, and pediatric HIV/AIDS cases.

MMP (Medical Monitoring Project)

Project providing information on needs, risk behaviors, barriers to utilization of services, and quality of care, as well as other data, among HIV-positive persons in care in Michigan.

Michigan MMP Coordinator, Meosia Lee-Turner. Call (313) 876-0117

NHBS (National HIV Behavioral Surveillance)

Surveillance system to monitor selected behaviors and access to prevention services among groups of uninfected persons at highest risk for HIV infection: MSM, IDU, and Heterosexuals Living in High Risk Areas.

Michigan NHBS Coordinator, Emily Higgins (313) 876-0176

STARHS (Serologic Testing Algorithm for Recent HIV Seroconversion)

HIV Incidence Surveillance that will enable estimation of new HIV infections in Michigan.

Michigan STARHS Coordinator, Marianne O'Connor (313) 876-0854

VARHS (Variant, Atypical, and Resistant HIV Surveillance)

Surveillance of drug-resistant and sub-type HIV strains using viral genotyping of remnant sera.

Michigan VARHS Coordinator, Mary-Grace Brandt (313) 876-4115

Risk & Exposure Categories

Blood Recipient

All hemophiliacs, blood transfusion recipients, and organ recipients who received blood products prior to 1985 and all persons documented to have ever received an infected organ or unit of blood

Heterosexual

HRH (High Risk Heterosexuals)

Males and females whose sexual partners are known to be HIV-infected or at high risk for HIV. The partners meet one of the following criteria: a history of sexual contact with bisexual males (for females), IDU, hemophiliacs, HIV+ transfusion recipients, or other HIV+ persons of unknown risk

PH (Presumed Heterosexual)-Female

Females whose only documented risk is heterosexual contact, and their male partners' risk and HIV status is unknown

IDU (Injection Drug User)

Persons who have a history of injecting drugs

Perinatal

HIV transmission from mother to child during birth or through breastfeeding.

MSM (Men who have sex with men)

Males who have a history of sexual contact with other men or with both men and women

MSM & Sex with Female (not HRH)

Males who have a history of sexual contact with other men and women, however, they do not know the risk of their female partner.

MSM/IDU

MSM who also have a history of injecting drugs

Behaviorally Bisexual Men

MSM who also have a history of sexual contact with a woman.

Undetermined

PH (Presumed Heterosexual)-Male

Males whose only documented risk is heterosexual contact, and their female partners' risk and HIV status is unknown

Unknown

Males and females with no identified risk

Risk Transmission and Exposure Categories

Risk Transmission Categories

Risk transmission categories are the hierarchical risk categories that have been used for displaying HIV transmission risk in the Michigan and national HIV/AIDS statistics since the 1980's. When the transmission categories were created, the order from top to bottom was meant to represent the most likely route through which HIV was transmitted, and thus implies that some modes of transmission are more efficient than others. The hierarchy was established based on what was known at the beginning of the epidemic about how HIV was transmitted, when almost all cases were among men and there was little documented heterosexual transmission. Since then, the hierarchy has not changed appreciably even though our understanding of the most efficient HIV transmission routes has changed.

Background on Hierarchy

The hierarchy algorithm is calculated using data provided on the case report form on the individual risk factor questions. In this hierarchy, all cases are assigned a single mode of transmission, with the exception of men who have reported sex with other men as well as injection of drugs. These men are categorized as Men who Have Sex with Men/Injection Drug Users (MSM/IDU). Over time, concerns have been raised that use of hierarchical categories masks the identification of cases with multiple risks. For example, consider a woman whose risk is documented as both injecting drugs and sex with a male partner who has injected drugs. This case would be assigned a risk of injecting drug use (IDU), rather than both IDU + HRH category, because the IDU category is ranked higher in the risk hierarchy than the high-risk heterosexual (HRH) category. Therefore, this woman's risk of HRH would not be represented.

There is a national effort toward representing mode of HIV transmission more comprehensively. However, the use of "multiple risk" or "combination risk" categories has not yet been implemented nationally, partly because many organizations that use HIV surveillance data still rely on the traditional transmission categories. Beginning in January 2009, Michigan will present data on mode of transmission in two ways. The traditional risk categories will continue to be used in the same tables in which they previously appeared. In addition, a new table (Table 2 on page 2) will display Exposure Categories, which will present mode of transmission in a manner that allows more complete presentation of the reported risk factor information.

Exposure Categories

The 'Exposure Categories' shown on page 2 convey all risks that a person is documented to have engaged in that could have exposed him or her to HIV. Like the traditional risk hierarchy categories, the Exposure Categories are mutually exclusive, meaning that each person is only included in one category. However, the categories, as presented, allow readers to see all the ways in which a person may have been infected with HIV and, with the exception of undetermined risk, are displayed in decreasing order of frequency. In order to display the most accurate information possible, we request that persons who fill out case report forms complete a 'Yes', 'No' or 'Unknown' answer to all the risk factor questions in Section VII Patient History.

HIV Surveillance in Michigan

Background

Reports of HIV infection and AIDS are submitted to state and local health departments under Michigan law by providers making the diagnoses or treating previously diagnosed persons. In addition, MDCH implemented PA 514 in April 2005, requiring laboratories to report HIV test results. The addition of laboratory reporting to the HIV surveillance system increased the case reports received and improved reporting completeness. Anonymous HIV reports (without name or other identifier) are excluded from this report because we cannot estimate duplication, update status, or obtain missing data. A total of 1,970 complete anonymous reports have been reported in Michigan.

HIV Prevalence Estimates for Michigan

HIV prevalence estimates in this report are based on adding the following three components and rounding: 1) the number of reported cases living with HIV/AIDS, 2) the number of known HIV+ cases not yet reported, estimated at 10 percent of the reported living HIV/AIDS cases, and 3) the number of HIV+ cases that have not yet been tested, estimated at 21 percent of the total cases living with HIV/AIDS (identical to the CDC estimate).

Categorical estimates of HIV infection are calculated from the distribution of reported cases among each group of confidentially-reported persons living with HIV or AIDS. The proportion of total cases is multiplied by 18,200. For example, 77 percent of combined HIV and AIDS reports are among men. Therefore, the number of HIV-infected men in Michigan is estimated to be 14,040 (77.16% X 18,200). Since the estimates are rounded to the nearest 10, totals may not equal 18,200. The minimum estimate is 10.

Prison estimates of HIV infection are calculated differently than the above mentioned categorical estimates. Because all prisoners are tested for HIV upon entry to prison, there is no need to apply estimates to account for unreported and untested cases to the reported prison cases. Therefore, the prison prevalence estimate is calculated by rounding the reported number of persons living with HIV/AIDS who were diagnosed in prison to the nearest 10.

County estimates of HIV infection are calculated similarly to the categorical estimates; however, for county calculations the proportion of cases in a particular county is multiplied by the statewide estimate minus the prison estimate (18,200 - 780 = 17,420). For example, 12 percent of HIV/AIDS cases (not including prison and cases with unknown residence) were living in Oakland county at diagnosis. Therefore, the number of HIV-infected persons who were living in Oakland county at the time of diagnosis is estimated to be 2,050 (11.75% x 17,420). Since the estimates are rounded to the nearest 10, the county totals may not equal 17,420. The method of calculating prevalence estimates for county of residence was revised as of April 2008, and thus county estimates presented prior to this date may differ from current and future estimates.

HIV Surveillance Staff Contacts

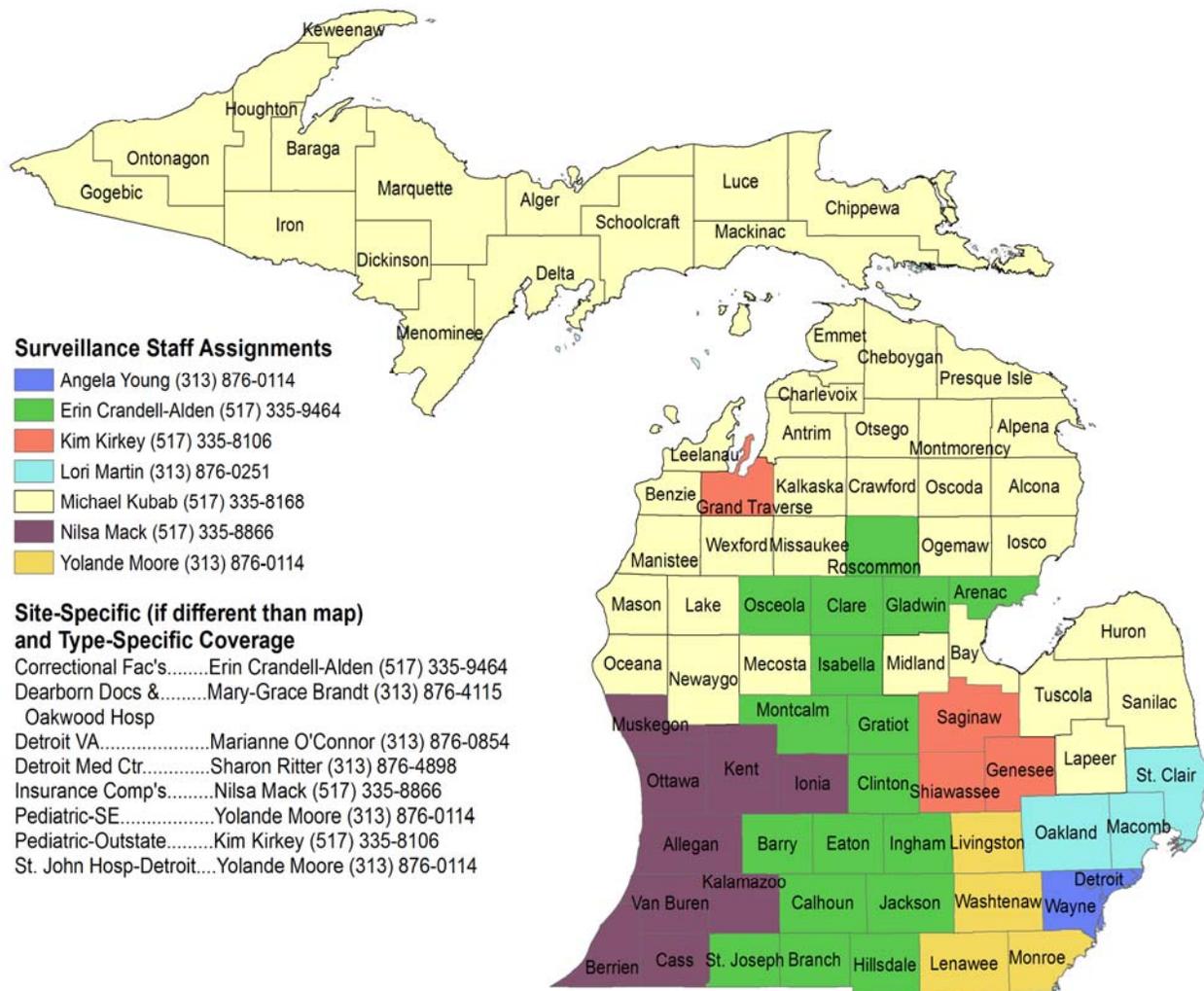


TABLE 1. Demographic Information on Prevalent HIV/AIDS Cases

	<i>EST PREV*</i>	<i>REPORTED PREVALENCE</i>						<i>CENSUS 2007 ESTIMATES</i>	
		<i>HIV, not AIDS</i>		<i>AIDS</i>		<i>Total</i>		<i>Rate per 100,000†</i>	
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
<i>RACE/ ETHNICITY[§]</i>									
White	6,340	2,286	35%	2,653	35%	4,939	35%	63	7,812,806 78%
Black	10,750	3,931	60%	4,451	59%	8,382	59%	589	1,422,205 14%
Hispanic	740	250	4%	323	4%	573	4%	142	402,797 4%
Asian/PI	90	34	1%	33	0%	67	0%	28	237,430 2%
Am Indian/AN	50	21	0%	20	0%	41	0%	75	54,473 1%
Multi/Unk/Other	240	84	1%	101	1%	185	1%	N/A	142,111 1%
<i>SEX & RACE</i>									
Males	14,040	4,947	75%	5,994	79%	10,941	77%	221	4,959,730 49%
White Males	5,530	1,934	29%	2,373	31%	4,307	30%	112	3,857,958 38%
Black Males	7,670	2,731	41%	3,247	43%	5,978	42%	888	673,251 7%
Hispanic Males	570	187	3%	256	3%	443	3%	208	212,734 2%
Other Males	270	95	1%	118	2%	213	2%	99	215,787 2%
Females	4,160	1,659	25%	1,587	21%	3,246	23%	63	5,112,092 51%
White Females	810	352	5%	280	4%	632	4%	16	3,954,848 39%
Black Females	3,080	1,200	18%	1,204	16%	2,404	17%	321	748,954 7%
Hispanic FmIs	170	63	1%	67	1%	130	1%	68	190,063 2%
Other Females	100	44	1%	36	0%	80	1%	37	218,227 2%
<i>RISK*</i>									
Male-Male Sex	8,690	3,006	46%	3,765	50%	6,771	48%	N/A	N/A N/A
Injection Drug Use	2,060	646	10%	959	13%	1,605	11%	N/A	N/A N/A
MSM/IDU	810	267	4%	366	5%	633	4%	N/A	N/A N/A
Blood Products	120	34	1%	62	1%	96	1%	N/A	N/A N/A
Heterosexual	3,270	1,260	19%	1,286	17%	2,546	18%	N/A	N/A N/A
HRH	2,320	837	13%	968	13%	1,805	13%	N/A	N/A N/A
PH-Female	950	423	6%	318	4%	741	5%	N/A	N/A N/A
Perinatal	200	105	2%	52	1%	157	1%	N/A	N/A N/A
Undetermined	3,050	1,288	19%	1,091	14%	2,379	17%	N/A	N/A N/A
PH-Male	1,630	589	9%	685	9%	1,274	9%	N/A	N/A N/A
Unknown	1,420	699	11%	406	5%	1,105	8%	N/A	N/A N/A
<i>AGE AT HIV DIAGNOSIS</i>									
0 - 12 years	230	118	2%	62	1%	180	1%	N/A	N/A N/A
13 - 19 years	810	397	6%	237	3%	634	4%	N/A	N/A N/A
20 - 24 years	2,310	1,021	15%	777	10%	1,798	13%	N/A	N/A N/A
25 - 29 years	3,000	1,142	17%	1,197	16%	2,339	16%	N/A	N/A N/A
30 - 39 years	6,470	2,161	33%	2,880	38%	5,041	36%	N/A	N/A N/A
40 - 49 years	3,870	1,280	19%	1,735	23%	3,015	21%	N/A	N/A N/A
50 - 59 years	1,230	395	6%	564	7%	959	7%	N/A	N/A N/A
60 years and over	280	89	1%	129	2%	218	2%	N/A	N/A N/A
Unspecified	10	3	0%	0	0%	3	0%	N/A	N/A N/A
<i>AREA OF RESIDENCE AT DIAGNOSIS*</i>									
Detroit Metro	11,980	4,212	64%	5,007	66%	9,219	65%	208	4,438,006 44%
Out-State	5,440	1,991	30%	2,194	29%	4,185	29%	74	5,633,816 56%
Prison/Unknown	790	403	6%	380	5%	783	6%	N/A	N/A N/A
TOTAL	18,200	6,606	100%	7,581	100%	14,187	100%	141	10,071,822 100%

*See pages i and ii for descriptions of prevalence estimate calculations and risk category groupings. Risk categories used in Michigan are newly defined as of the July 2007 quarter.

† To calculate "1 out of x" statements for rate, divide the census number by the total reported prevalence. For example, for non-Hispanic whites: 7,812,806 / 4,939 = 1,582. Thus, 1 out of every 1,582 non-Hispanic white persons in Michigan are living with HIV

§ In this report, persons described as white, black, Asian/Pacific Islander (PI), or American Indian/Alaska Native (AN) are all non-Hispanic; persons described as Hispanic might be of any race.

* Detroit Metro Area consists of Oakland, Monroe, Lapeer, Macomb, St. Clair, and Wayne Counties. The remaining counties comprise the Out-State area.

TABLE 2. Risk Transmission* and Exposure Categories* for HIV on Prevalent HIV/AIDS Cases, by Sex

	REPORTED HIV/AIDS PREVALENCE					
	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
RISK TRANSMISSION CATEGORIES (CDC Hierarchy)[§]						
(Mutually Exclusive: one case is represented in ONLY one category)						
Male-Male Sex	6,771	62%	N/A	--	6,771	48%
Injection Drug Use	959	9%	646	20%	1,605	11%
MSM/IDU	633	6%	N/A	--	633	4%
Blood Products	83	1%	13	0%	96	1%
Heterosexual	524	5%	2,022	62%	2,546	18%
HRH	524	5%	1,281	39%	1,805	13%
PH-Female	N/A	--	741	23%	741	5%
Perinatal	88	1%	69	2%	157	1%
Undetermined	1,883	17%	496	15%	2,379	17%
PH-Male	1,274	12%	N/A	--	1,274	9%
Unknown	609	6%	496	15%	1,105	8%
EXPOSURE CATEGORIES[†]						
(Mutually Exclusive: one case is represented in ONLY one category)						
Male-Male Sex	6,268	57%	N/A	--	6,268	44%
MSM - ONLY	4,279	39%	N/A	--	4,279	30%
MSM & Sex with Female (not HRH)	1,989	18%	N/A	--	1,989	14%
MSM & HRH	499	5%	N/A	--	499	4%
MSM & IDU	437	4%	N/A	--	437	3%
MSM & IDU & HRH	196	2%	N/A	--	196	1%
MSM & Blood Products	4	0%	N/A	--	4	0%
Heterosexual - ONLY	524	5%	2,022	62%	2,546	18%
HRH	524	5%	1,281	39%	1,805	13%
PH-Female	N/A	--	741	23%	741	5%
HRH & IDU	378	3%	354	11%	732	5%
Injection Drug Use - ONLY	576	5%	288	9%	864	6%
IDU & Blood Products	5	0%	4	0%	9	0%
Perinatal Exposure	88	1%	70	2%	158	1%
Exposure to Blood Products - ONLY	83	1%	13	0%	96	1%
Undetermined	1,883	17%	495	15%	2,378	17%
PH-Male Only	1,274	12%	N/A	--	1,274	9%
Unknown	609	6%	495	15%	1,104	8%
TOTAL	10,941	100%	3,246	100%	14,187	100%
SUMMARIZED EXPOSURE CATEGORIES[‡]						
(NOT Mutually Exclusive: one case can be represented in multiple categories)						
Any MSM	7,404	68%	N/A	--	7,404	52%
Behaviorally Bisexual Men	2,684	25%	N/A	--	2,684	19%
Any Heterosexual	3,586	33%	2,376	73%	5,962	42%
Any HRH	1,597	15%	1,635	50%	3,232	23%
Any IDU	1,592	15%	646	20%	2,238	16%

*See page ii for descriptions of risk category groupings.

[§] Risk categories are grouped based on hierarchical categories as set by the CDC. Any one person with multiple risks may only be represented in the highest category (based on the hierarchical algorithm).

[†] Exposure Categories are mutually exclusive and grouped by allowing all possible combinations of risks that any one person may have. Any one person may have any combination of risks and is not assigned to a single risk category, as in the hierarchical groupings.

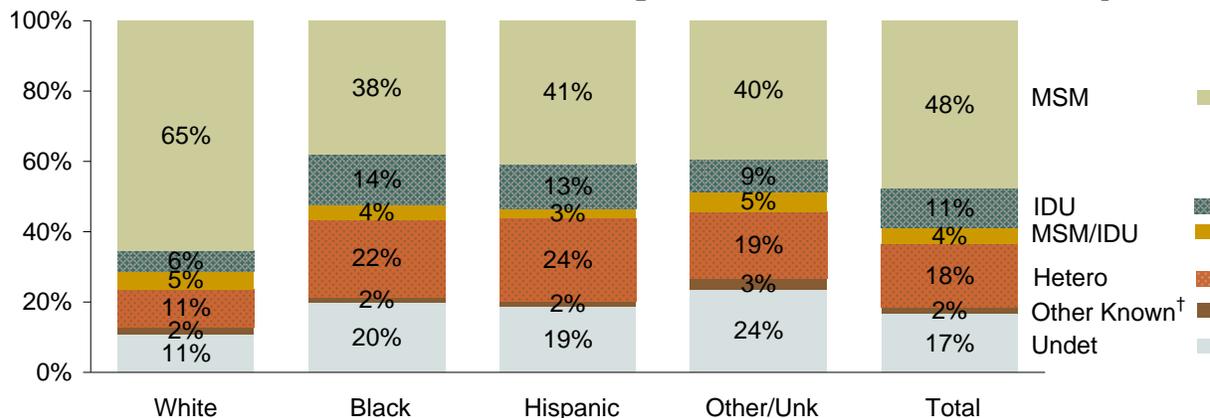
[‡] These groups presented are NOT mutually exclusive, meaning a case can be represented in multiple groupings. These summarized categories are meant to give a broader picture of the exposure categories and will NOT add up to the overall total number of persons living with HIV/AIDS.

TABLE 3. Sex, Race, and Risk Among Prevalent HIV/AIDS Cases

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
Male-Male sex	3,232	75%	3,189	53%	234	53%	116	54%	6,771	62%
Injecting Drug Use	181	4%	714	12%	52	12%	12	6%	959	9%
Male-Male Sex/IDU	247	6%	355	6%	15	3%	16	8%	633	6%
Blood Products	65	2%	15	0%	1	0%	2	1%	83	1%
Heterosexual*	101	2%	382	6%	37	8%	4	2%	524	5%
Perinatal	15	0%	66	1%	2	0%	5	2%	88	1%
Undetermined	466	11%	1,257	21%	102	23%	58	27%	1,883	17%
<i>PH-Male</i>	282	7%	879	15%	76	17%	37	17%	1,274	12%
<i>Unknown</i>	184	4%	378	6%	26	6%	21	10%	609	6%
Male Subtotal	4,307	39%	5,978	55%	443	4%	213	2%	10,941	100%
FEMALES										
	White		Black		Hispanic		Other or Unknown		Female Subtotal	
Injecting Drug Use	113	18%	497	21%	21	16%	15	19%	646	20%
Blood Products	9	1%	4	0%	0	0%	0	0%	13	0%
Heterosexual	425	67%	1,447	60%	98	75%	52	65%	2,022	62%
<i>HRH</i>	315	50%	866	36%	72	55%	28	35%	1,281	39%
<i>PH-Female</i>	110	17%	581	24%	26	20%	24	30%	741	23%
Perinatal	13	2%	48	2%	6	5%	2	3%	69	2%
Undetermined*	72	11%	408	17%	5	4%	11	14%	496	15%
Female Subtotal	632	19%	2,404	74%	130	4%	80	2%	3,246	100%
TOTAL										
	White		Black		Hispanic		Other or Unknown		Risk Total	
Male-Male sex	3,232	65%	3,189	38%	234	41%	116	40%	6,771	48%
Injecting Drug Use	294	6%	1,211	14%	73	13%	27	9%	1,605	11%
Male-Male Sex/IDU	247	5%	355	4%	15	3%	16	5%	633	4%
Blood Products	74	1%	19	0%	1	0%	2	1%	96	1%
Heterosexual	526	11%	1,829	22%	135	24%	56	19%	2,546	18%
<i>HRH</i>	416	8%	1,248	15%	109	19%	32	11%	1,805	13%
<i>PH-Female</i>	110	2%	581	7%	26	5%	24	8%	741	5%
Perinatal	28	1%	114	1%	8	1%	7	2%	157	1%
Undetermined	538	11%	1,665	20%	107	19%	69	24%	2,379	17%
<i>PH-Male</i>	282	6%	879	10%	76	13%	37	13%	1,274	9%
<i>Unknown</i>	256	5%	786	9%	31	5%	32	11%	1,105	8%
RACE TOTAL	4,939	35%	8,382	59%	573	4%	293	2%	14,187	100%

*In the male subset all cases in the heterosexual category are HRH because the PH-Female category is not applicable to males and, likewise, in the female subset, all cases in the undetermined category are of unknown risk because the PH-Male category is not applicable to females.

FIGURE 1. Mode of HIV Transmission Among Prevalent HIV/AIDS Cases by Race



†The 'Other Known' category in Figure 1 is a combination of 'Blood Products' and 'Perinatal' from Table 3

TABLE 4. Sex, Race, and Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases

MALES	White		Black		Hispanic		Other or Unknown		Male Subtotal	
0 - 12 years	25	1%	72	1%	2	0%	6	3%	105	1%
13 - 19 years	64	1%	370	6%	14	3%	8	4%	456	4%
20 - 24 years	405	9%	885	15%	46	10%	26	12%	1,362	12%
25 - 29 years	709	16%	961	16%	87	20%	40	19%	1,797	16%
30 - 39 years	1,698	39%	1,979	33%	176	40%	88	41%	3,941	36%
40 - 49 years	1,016	24%	1,239	21%	82	19%	33	15%	2,370	22%
50 - 59 years	306	7%	393	7%	26	6%	10	5%	735	7%
60 years and over	84	2%	77	1%	10	2%	2	1%	173	2%
Total*	4,307	39%	5,976	55%	443	4%	213	2%	10,939	100%

FEMALES	White		Black		Hispanic		Other or Unknown		Female Subtotal	
0 - 12 years	14	2%	53	2%	6	5%	2	3%	75	2%
13 - 19 years	40	6%	125	5%	11	8%	2	3%	178	5%
20 - 24 years	117	19%	292	12%	18	14%	9	11%	436	13%
25 - 29 years	126	20%	383	16%	18	14%	15	19%	542	17%
30 - 39 years	200	32%	819	34%	48	37%	33	41%	1,100	34%
40 - 49 years	92	15%	524	22%	18	14%	11	14%	645	20%
50 - 59 years	34	5%	177	7%	7	5%	6	8%	224	7%
60 years and over	8	1%	31	1%	4	3%	2	3%	45	1%
Total*	631	19%	2,404	74%	130	4%	80	2%	3,245	100%

TOTAL	White		Black		Hispanic		Other or Unknown		Age Total	
0 - 12 years	39	1%	125	1%	8	1%	8	3%	180	1%
13 - 19 years	104	2%	495	6%	25	4%	10	3%	634	4%
20 - 24 years	522	11%	1,177	14%	64	11%	35	12%	1,798	13%
25 - 29 years	835	17%	1,344	16%	105	18%	55	19%	2,339	16%
30 - 39 years	1,898	38%	2,798	33%	224	39%	121	41%	5,041	36%
40 - 49 years	1,108	22%	1,763	21%	100	17%	44	15%	3,015	21%
50 - 59 years	340	7%	570	7%	33	6%	16	5%	959	7%
60 years and over	92	2%	108	1%	14	2%	4	1%	218	2%
RACE TOTAL *	4,938	35%	8,380	59%	573	4%	293	2%	14,184	100%

*Not included in this table are one white female and two black male cases of unknown age at diagnosis

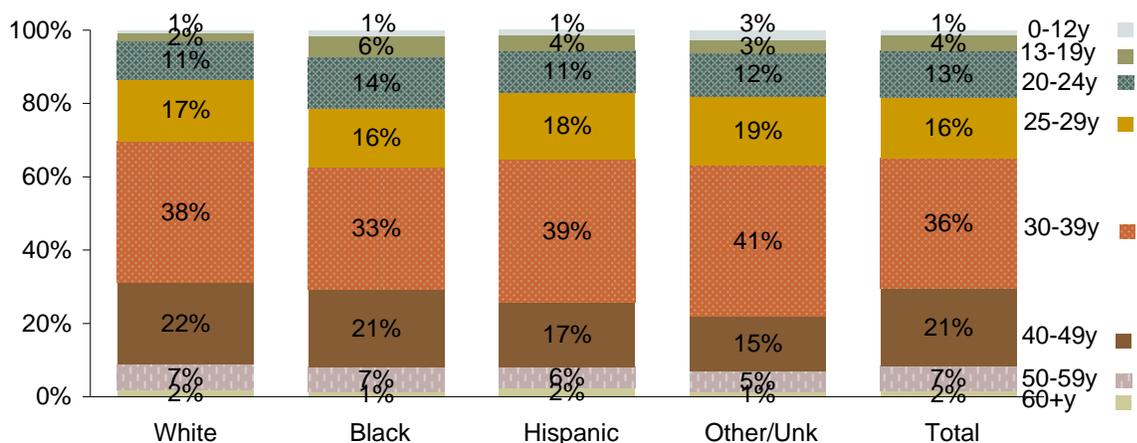
FIGURE 2. Age at HIV Diagnosis Among Prevalent HIV/AIDS Cases by Race

TABLE 5. New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year

Year	<i>HIV/AIDS</i>			<i>AIDS</i>		
	New HIV Diagnoses	Deaths	Prevalence	New AIDS Diagnoses	Deaths	Prevalence
1981	4	2	2	3	2	1
1982	3	0	5	2	0	3
1983	28	5	28	22	5	20
1984	70	17	81	50	17	53
1985	382	63	400	98	63	88
1986	488	102	786	168	99	157
1987	716	182	1,320	318	174	301
1988	903	263	1,960	493	254	540
1989	1,301	380	2,881	689	370	859
1990	1,440	453	3,868	795	433	1,221
1991	1,449	536	4,781	962	515	1,668
1992	1,490	662	5,609	1,231	630	2,269
1993	1,305	822	6,092	1,126	776	2,619
1994	1,214	899	6,407	1,013	842	2,790
1995	1,190	911	6,686	1,063	843	3,010
1996	1,124	632	7,178	858	583	3,285
1997	1,047	469	7,756	736	419	3,602
1998	905	398	8,263	649	350	3,901
1999	756	363	8,656	575	317	4,159
2000	927	379	9,204	650	328	4,481
2001	883	382	9,705	572	315	4,738
2002	764	300	10,169	577	271	5,044
2003	878	278	10,769	599	240	5,403
2004	893	271	11,391	556	224	5,735
2005	895	284	12,002	679	242	6,172
2006	828	251	12,579	629	209	6,592
2007	800	234	13,145	597	202	6,987
2008	795	200	13,740	558	180	7,365
2009 [†]	541	94	14,187	302	86	7,581
TOTAL	24,019	9,832		16,570	8,989	

[†] Reporting for 2009 is incomplete at this time.

The prevalence of HIV in Michigan has steadily increased, since persons with HIV are living longer. This is largely due to improved anti-retroviral therapy.

The increase in HIV prevalence is also reflected in Figure 3 on page 6, which shows that the number of persons diagnosed, while stable for the last several years, is greater than the number of deaths each year. This directly contributes to the increase in prevalence. The current reported prevalence of HIV/AIDS in Michigan is 14,187. The prevalence of AIDS, which is a subset of HIV/AIDS prevalence, is 7,581.

As implied, the HIV/AIDS section displays data on all persons with HIV, including those with AIDS, as well as those who have not been diagnosed with AIDS. Thus, persons represented in the AIDS section are also represented in the HIV/AIDS section. The number of reported deaths includes deaths directly attributable to presence of HIV/AIDS as well as deaths due to other causes.

NOTE: Reporting for recent years may not be complete. Data are not adjusted to account for reporting delays.

FIGURE 3. New Diagnoses, Deaths, and Prevalence of HIV/AIDS by Year

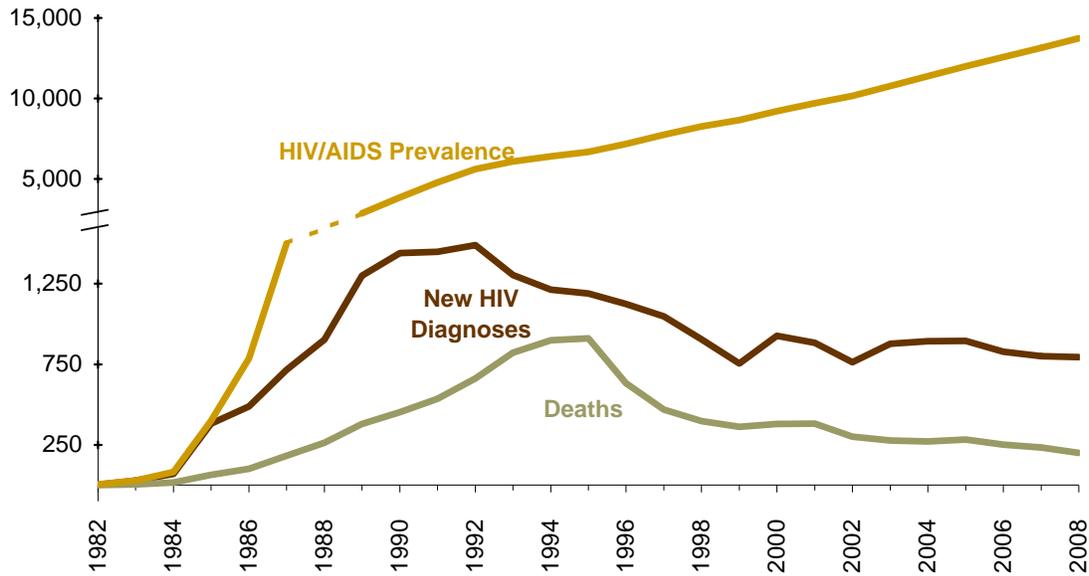


Figure 4 (below) shows the number of HIV-infected Michigan residents who have been reported as deceased by a local health department, the department of vital records via a data match or death certificate, or an alternate source. The number of deaths increased in all race/sex groups from the beginning of the epidemic through approximately 1994-1995. The number of deaths decreased markedly between 1995 and 1998 and then were relatively stable until 2001. It should be noted that the percent decrease in deaths among white males (73%) between 1995 and 2001 was more pronounced than the percent decrease among black males (57%), and the percent decrease among white females (55%) was larger than the percent decrease among black females (38%). Encouragingly, the number of deaths in black males has fallen substantially from 2001 to 2008 (50%), as have the number of deaths in white males (49%) and black females (44%). Compared to the other groups, the number of deaths in white females fell by a smaller amount between 2001 and 2008 (5%).

FIGURE 4. HIV/AIDS Deaths by Race/Sex

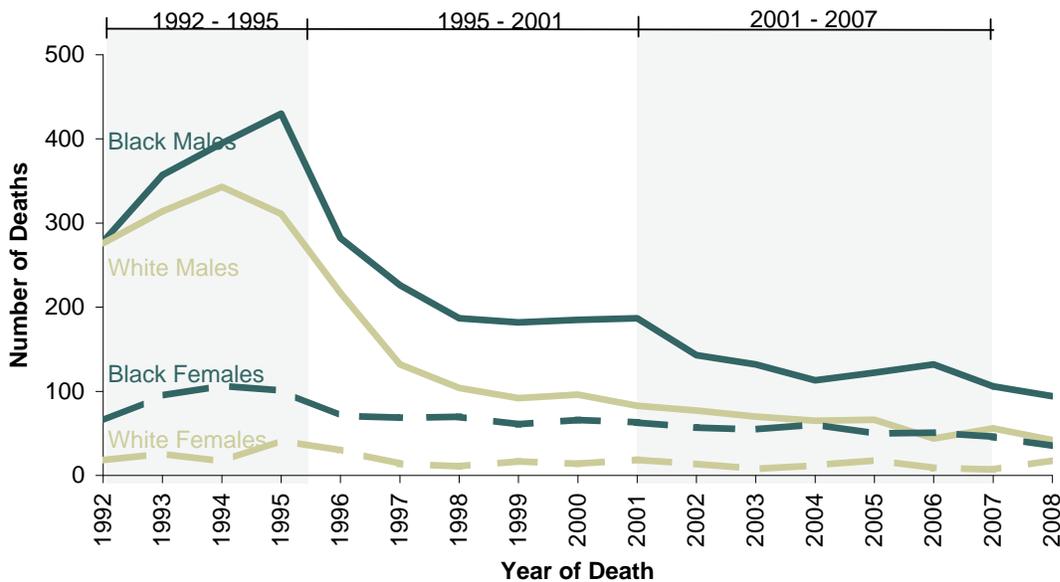


TABLE 6. Demographic Information on Persons Ever Diagnosed* with HIV

	2009 [†]						CUMULATIVE (through 2009)					
	Male		Female		Total		Male		Female		Total	
RACE/ETHNICITY												
White	145	(34%)	14	(13%)	159	(29%)	7,645	(40%)	966	(19%)	8,611	(36%)
Black	266	(62%)	86	(79%)	352	(65%)	10,378	(55%)	3,728	(75%)	14,106	(59%)
Hispanic	13	(3%)	3	(3%)	16	(3%)	682	(4%)	180	(4%)	862	(4%)
Asian/HI/PI	1	(0%)	3	(3%)	4	(1%)	61	(0%)	21	(0%)	82	(0%)
Am In/AK Nat	0	(0%)	0	(0%)	0	(0%)	46	(0%)	15	(0%)	61	(0%)
Multi/Unk	7	(2%)	3	(3%)	10	(2%)	223	(1%)	74	(1%)	297	(1%)
RISK[§]												
Male-Male Sex	250	(58%)	N/A	--	250	(46%)	11,198	(59%)	N/A	--	11,198	(47%)
Injection Drug Use	4	(1%)	12	(11%)	16	(3%)	2,669	(14%)	1,549	(31%)	4,218	(18%)
MSM/IDU	10	(2%)	N/A	--	10	(2%)	1,322	(7%)	N/A	--	1,322	(6%)
Blood Products	0	(0%)	0	(0%)	0	(0%)	305	(2%)	37	(1%)	342	(1%)
Heterosexual	15	(3%)	66	(61%)	81	(15%)	777	(4%)	2,656	(53%)	3,433	(14%)
HRH	15	(3%)	21	(19%)	36	(7%)	777	(4%)	1,777	(36%)	2,554	(11%)
PH-Female	N/A	--	45	(41%)	45	(8%)	N/A	--	879	(18%)	879	(4%)
Perinatal	1	(0%)	1	(1%)	2	(0%)	129	(1%)	101	(2%)	230	(1%)
Undetermined	152	(35%)	30	(28%)	182	(34%)	2,635	(14%)	641	(13%)	3,276	(14%)
PH-Male	79	(18%)	N/A	--	79	(15%)	1,726	(9%)	N/A	--	1,726	(7%)
Unknown	73	(17%)	30	(28%)	103	(19%)	909	(5%)	641	(13%)	1,550	(6%)
AGE AT HIV DIAGNOSIS												
0 - 12 years	1	(0%)	1	(1%)	2	(0%)	173	(1%)	106	(2%)	279	(1%)
13 - 19 years	51	(12%)	8	(7%)	59	(11%)	541	(3%)	210	(4%)	751	(3%)
20 - 24 years	88	(20%)	11	(10%)	99	(18%)	1,789	(9%)	540	(11%)	2,329	(10%)
25 - 29 years	63	(15%)	15	(14%)	78	(14%)	3,036	(16%)	764	(15%)	3,800	(16%)
30 - 39 years	82	(19%)	35	(32%)	117	(22%)	7,148	(38%)	1,762	(35%)	8,910	(37%)
40 - 49 years	92	(21%)	22	(20%)	114	(21%)	4,449	(23%)	1,115	(22%)	5,564	(23%)
50 - 59 years	47	(11%)	12	(11%)	59	(11%)	1,469	(8%)	375	(8%)	1,844	(8%)
60 years and over	8	(2%)	5	(5%)	13	(2%)	428	(2%)	111	(2%)	539	(2%)
Unspecified	0	(0%)	0	(0%)	0	(0%)	2	(0%)	1	(0%)	3	(0%)
DISEASE STATUS[‡]												
HIV, not AIDS	330	(76%)	86	(79%)	416	(77%)	5,566	(29%)	1,883	(38%)	7,449	(31%)
AIDS - Same time	81	(19%)	18	(17%)	99	(18%)	7,373	(39%)	1,434	(29%)	8,807	(37%)
AIDS - Short lag	21	(5%)	5	(5%)	26	(5%)	1,418	(7%)	390	(8%)	1,808	(8%)
AIDS - Long lag	0	(0%)	0	(0%)	0	(0%)	4,678	(25%)	1,277	(26%)	5,955	(25%)
AREA OF RESIDENCE AT DIAGNOSIS[£]												
Detroit Metro	293	(68%)	73	(67%)	366	(68%)	12,541	(66%)	3,612	(72%)	16,153	(67%)
Out-State	132	(31%)	34	(31%)	166	(31%)	5,404	(28%)	1,267	(25%)	6,671	(28%)
Prison/Unknown	7	(2%)	2	(2%)	9	(2%)	1,090	(6%)	105	(2%)	1,195	(5%)
TOTAL	432	(80%)	109	(20%)	541	(100%)	19,035	(79%)	4,984	(21%)	24,019	(100%)

*Includes deceased cases

†Data for cases diagnosed in 2009 may be incomplete at this time

§ See page ii for description of risk category groupings. Risk categories used in Michigan are newly defined as of the July 2007 quarter.

‡ The definitions of disease status are as follows:

HIV, not AIDS = Has not been diagnosed with AIDS

AIDS - Same time = Concurrent HIV and AIDS diagnoses (diagnoses within the same month)

AIDS - Short lag = AIDS diagnosed 1 month to 12 months after HIV diagnosis

AIDS - Long lag = AIDS diagnosed more than 12 months after HIV diagnosis

£ Detroit Metro Area consists of Oakland, Monroe, Lapeer, Macomb, St. Clair, and Wayne Counties. The remaining counties comprise the Out-State area.

NOTE: <5 and ** = 1, 2, 3, or 4 cases

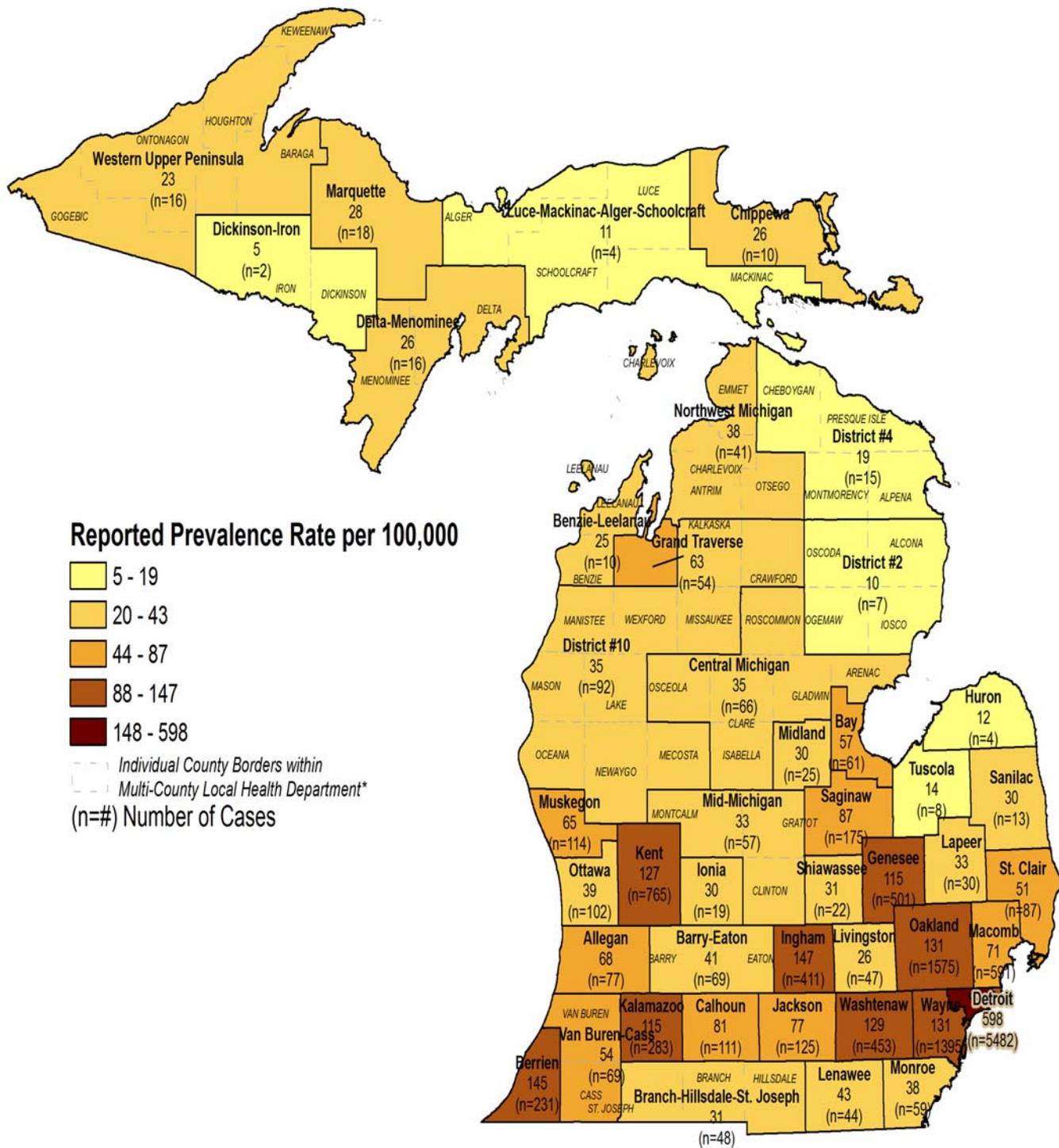
TABLE 7. Prevalent HIV/AIDS Cases According to County of Residence at Diagnosis

COUNTY	EST PREV Number	REPORTED PREVALENCE				CENSUS 2007 EST	COUNTY	EST PREV Number	REPORTED PREVALENCE				CENSUS 2007 EST
		HIV, Not AIDS	AIDS	Total	Rate*				HIV, Not AIDS	AIDS	Total	Rate*	
Alcona	10	0	0	0	0	11,538	Livingston	60	20	27	47	26	183,194
Alger	10	0	1	1	10	9,612	Luce	10	0	0	0	0	6,728
Allegan	100	31	46	77	68	112,761	Mackinac	10	1	1	2	18	10,877
Alpena	10	1	3	4	13	29,707	Macomb	770	279	312	591	71	831,077
Antrim	10	3	6	9	37	24,299	Manistee	10	5	6	11	44	24,803
Arenac	10	1	1	2	12	16,608	Marquette	20	10	8	18	28	65,216
Baraga	10	2	4	6	70	8,544	Mason	10	3	6	9	31	28,750
Barry	30	8	14	22	37	59,188	Mecosta	20	10	4	14	33	42,090
Bay	80	34	27	61	57	107,517	Menominee	10	3	1	4	16	24,249
Benzie	10	2	2	4	23	17,510	Midland	30	11	14	25	30	82,818
Berrien	300	97	134	231	145	159,589	Missaukee	10	4	2	6	40	14,976
Branch	10	9	2	11	24	46,194	Monroe	80	22	37	59	38	153,608
Calhoun	140	54	57	111	81	136,615	Montcalm	20	6	13	19	30	62,950
Cass	40	14	13	27	53	50,551	Montmorency	10	0	3	3	29	10,327
Charlevoix	20	5	8	13	50	26,181	Muskegon	150	59	55	114	65	174,386
Cheboygan	10	2	4	6	22	26,768	Newaygo	20	6	9	15	31	49,171
Chippewa	10	7	3	10	26	38,922	Oakland	2,050	767	808	1,575	131	1,206,089
Clare	20	6	7	13	42	30,697	Oceana	10	6	4	10	36	27,800
Clinton	40	18	13	31	44	69,755	Ogemaw	10	1	2	3	14	21,338
Crawford	10	0	3	3	21	14,550	Ontonagon	10	1	1	2	29	6,977
Delta	20	4	8	12	32	37,367	Osceola	10	1	2	3	13	23,148
Dickinson	10	0	1	1	4	26,937	Oscoda	10	1	0	1	11	8,938
Eaton	60	22	25	47	44	107,390	Otsego	10	5	6	11	45	24,223
Emmet	10	3	5	8	24	33,393	Ottawa	130	42	60	102	39	259,206
Genesee	650	250	251	501	115	434,715	Presque Isle	10	0	2	2	14	13,852
Gladwin	10	2	5	7	27	26,287	Roscommon	10	4	7	11	43	25,517
Goebic	10	1	1	2	12	16,287	Saginaw	230	89	86	175	87	202,268
Grand Traverse	70	29	25	54	63	85,479	Sanilac	20	6	7	13	30	43,640
Gratiot	10	3	4	7	17	42,141	Schoolcraft	10	1	0	1	12	8,518
Hillsdale	10	4	3	7	15	46,781	Shiawassee	30	9	13	22	31	71,753
Houghton	10	2	4	6	17	35,201	St. Clair	110	46	41	87	51	170,119
Huron	10	2	2	4	12	33,290	St. Joseph	40	11	19	30	48	62,449
Ingham	530	221	190	411	147	279,295	Tuscola	10	4	4	8	14	56,805
Ionia	20	8	11	19	30	64,053	Van Buren	50	18	24	42	54	77,931
Iosco	10	2	1	3	11	26,255	Washtenaw	590	220	233	453	129	350,003
Iron	10	0	1	1	8	12,151	Wayne Total	8,940	3,084	3,793	6,877	346	1,985,101
Isabella	40	16	14	30	45	66,693	Wayne, excl. Detroit	1,810	600	795	1,395	131	1,068,149
Jackson	160	58	67	125	77	163,006	Detroit	7,120	2,484	2,998	5,482	598	916,952
Kalamazoo	370	145	138	283	115	245,333	Wexford	10	3	6	9	28	31,792
Kalkaska	10	4	1	5	29	17,188	Detroit Metro[†]	11,980	4,212	5,007	9,219	208	4,438,006
Kent	990	338	427	765	127	604,330	Out-State[†]	5,440	1,991	2,194	4,185	74	5,633,816
Keweenaw	10	0	0	0	0	2,151	Prisons[‡]	780	402	378	780	N/A	N/A
Lake	10	3	7	10	90	11,153	Unknown	10	1	2	3	N/A	N/A
Lapeer	40	14	16	30	33	92,012	TOTAL	18,200	6,606	7,581	14,187	141	10,071,822
Leelanau	10	0	6	6	27	21,898							
Lenawee	60	20	24	44	43	101,243							

*Rate is reported prevalence per 100,000 and is not an estimate

[†] Detroit Metro Area consists of Oakland, Monroe, Lapeer, Macomb, St. Clair, and Wayne Counties. The remaining counties comprise the Out-State area[‡] The Prevalence Estimate for prisons is calculated differently from the remainder of the state. Please see the Front Matter (p. iii) for a further explanation

FIGURE 5. Reported HIV Prevalence and Prevalence Rates by Residence at Diagnosis



*To mitigate the effect of small numbers of cases, reported HIV prevalence rates and case numbers for multi-county health departments are listed for the health department as a whole and not the individual counties.

TABLE 8. Perinatal HIV Exposures by Year of Birth, 2003 - 2009

	2003	2004	2005	2006	2007	2008	2009 [†]
NUMBER DELIVERIES/BIRTHS							
Infants	66	55	71	49	52	35	27
Mothers	65	51	65	47	45	34	22
RESIDENCE AT BIRTH							
Southeast Michigan	45 68%	37 67%	42 59%	30 61%	35 67%	24 69%	19 70%
Out-State Michigan	21 32%	18 33%	29 41%	19 39%	17 33%	11 31%	8 30%
INFANTS' RACE							
White, Non-Hispanic	10 15%	7 13%	9 13%	6 12%	6 12%	7 20%	6 22%
Black, Non-Hispanic	51 77%	45 82%	57 80%	34 69%	41 79%	25 71%	18 67%
Other	5 8%	3 5%	5 7%	9 18%	5 10%	3 9%	3 11%
MOTHERS' MODE OF TRANSMISSION*							
Injecting Drug Use	6 9%	3 6%	7 11%	2 4%	1 2%	1 3%	3 14%
High Risk Heterosexual	30 46%	13 25%	32 49%	18 38%	15 33%	6 18%	6 27%
Undetermined	28 43%	35 69%	26 40%	27 57%	29 64%	27 79%	13 59%

*Not reported in this table is one mother's mode of transmission of 'Blood Products' for an infant born in 2003

† Reporting for 2009 is incomplete at this time.

Table 8 displays the characteristics of all infants born to HIV positive women as well as characteristics of their mothers. Figure 6 indicates the current infection status of these infants -- the bottom portion of the bars showing number confirmed to be infected with HIV and/or diagnosed with AIDS; the middle portion showing those not to be infected with HIV or AIDS through laboratory testing or physician exam; and the top portion showing the number whose HIV infection status is unknown due to loss to follow up or infection status reporting delay.

Since 1994, the CDC and other organizations involved in perinatal HIV transmission have recommended that HIV-positive pregnant women receive doses of zidovudine (ZDV or AZT) prenatally and at labor and delivery and that children born to these women receive ZDV neonatally. Despite these recommendations, only 57% of births to HIV-positive women are documented by MDCH to have received all three arms of therapy. For more information, please see the annual Missed Opportunity report, which can be found at: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_2982_46000_46003-166892--,00.html

FIGURE 6. Infection Status of Perinatal HIV Exposures, 2003 - 2009